

7th Grade Math Curriculum

- I. Decimal Patterns and Algebra
 - A. A Plan for Problem Solving
 - B. Powers and Exponents
 - C. Order of Operations
 - D. Algebra: Variables and Expressions
 - E. Problem-Solving Strategy: Guess and Check
 - F. Algebra: Equations
 - G. Algebra: Properties
 - H. Sequences
 - I. Measurement: The Metric System
 - J. Scientific Notation

- II. Statistics: Analyzing Data
 - A. Frequency Tables
 - B. Problem-Solving Strategy: Use a Graph
 - C. Making Predictions
 - D. Line Plots
 - E. Mean, Median, and Mode
 - F. Stem-and –Leaf Plots
 - G. Box-and-Whisker Plots
 - H. Bar Graphs and Histograms
 - I. Misleading Statistics

- III. Algebra: Integers
 - A. Integers and Absolute Value
 - B. Comparing and Ordering Integers
 - C. The Coordinate Plane
 - D. Adding Integers
 - E. Subtracting Integers
 - F. Problem-Solving Strategy: Look for a Pattern
 - G. Multiplying Integers
 - H. Dividing Integers

- IV. Algebra: Linear Equations and Functions
 - A. Writing Expressions and Equations

- B. How to Read Math Problems
- C. Solving Addition and Subtraction Equations
- D. Solving Multiplication Equations
- E. Problem-Solving Strategy: Work Backward
- F. Solving Two-Step Equations
- G. Inequalities
- H. Functions and Linear Equations
- I. Lines and Slope

V. Fractions, Decimals, and Percents

- A. Exploring Factors
- B. Prime Factorization
- C. Problem-Solving Strategy: Make an Organized List
- D. Greatest Common Factor
- E. Simplifying Fractions
- F. Fractions and Decimals
- G. Fractions and Percents
- H. Percents and Decimals
- I. Least Common Multiple
- J. Comparing and Ordering Rational Numbers

VI. Applying Fractions

- A. Estimating with Fractions
- B. Adding and Subtracting Fractions
- C. Adding and Subtracting Mixed Numbers
- D. Problem-Solving Strategy: Eliminate Possibilities
- E. Multiplying Fractions and Mixed Numbers
- F. Algebra: Solving Equations
- G. Dividing Fractions and Mixed Numbers
- H. Measurement: Changing Customary Units
- I. Geometry: Perimeter and Area
- J. Geometry: Circles and Circumference

VII. Ratios and Proportions

- A. Ratios
- B. Rates
- C. Rate of Change

- D. Solving Proportions
 - E. Problem-Solving Strategy: Draw a Diagram
 - F. Scale Drawings
 - G. Fractions, Decimals, and Percents
 - H. Percents Greater Than 100% and Percents Less Than 1%
 - I. Percent of a Number
 - J. The Percent Proportion
- VIII. Applying Percent
- A. Percent and Estimation
 - B. Problem-Solving Strategy: Reasonable Answers
 - C. The Percent Equation
 - D. Sampling
 - E. Using Statistics to Predict
 - F. Percent of Change
 - G. Sales Tax and Discount
 - H. Simple Interest
- IX. Probability
- A. Simple Events
 - B. Tree Diagrams
 - C. The Fundamental Counting Principle
 - D. Permutations
 - E. Combinations
 - F. Problem-Solving Strategy: Act It Out
 - G. Theoretical and Experimental Probability
 - H. Independent and Dependent Events
- X. Geometry
- A. Measuring Angles
 - B. Angles
 - C. Constructing and Bisecting Angles
 - D. Making Circle Graphs
 - E. Angle Relationships
 - F. Constructing Parallel Lines
 - G. Triangles
 - H. Constructing Triangles

- I. Triangles
 - J. Quadrilaterals
 - K. Similar Figures
 - L. Problem-Solving Strategy: Use Logical Reasoning
 - M. Polygons and Tessellations
 - N. Translations
 - O. Dilations
 - P. Reflections
 - Q. Rotations
- XI. Geometry: Measuring Two-Dimensional Figures
- A. Squares and Square Roots
 - B. How to Make a Web
 - C. Estimating Square Roots
 - D. The Pythagorean Theorem
 - E. Area of Parallelograms
 - F. Area of Triangles and Trapezoids
 - G. Area of Circles
 - H. Problem-Solving Strategy: Solve a Simpler Problem
 - I. Area of Complex Figures
 - J. Area Models and Probability
- XII. Geometry: Measuring Three-Dimensional Figures
- A. Building Three-Dimensional Figures
 - B. Drawing Three-Dimensional Figures
 - C. Problem-Solving Strategy: Make a Model
 - D. Volume of Rectangular Prisms
 - E. Volume of Cylinders
 - F. Nets and Surface Area
 - G. Surface Area of Rectangular Prisms
 - H. Changes in Volume and Surface Area
 - I. Surface Area of Cylinders
 - J. Precision and Measurement